

ENVIRONMENTAL ASSESSMENT

On an Application for an

OPENCUT MINING PERMIT

The Montana Department of Environmental Quality (DEQ) prepared this Environmental Assessment (EA) in accordance with requirements of the Montana Environmental Policy Act (MEPA). An EA functions to identify, disclose, and analyze the impacts of a proposed action. This document may disclose impacts that have no legislatively required mitigation measures, or over which there is no regulatory authority.

The state law that regulates gravel mining operations in Montana is the Opencut Mining Act. This law and the rules adopted thereunder place operational guidance and limitations on a project during its lifetime, and provide for the reclamation of land affected by opencut mining operations.

Local governments and other state agencies may have authority over different resources and activities under their regulations. Approval or denial of this Opencut Application will be based on a determination of whether or not the proposed operation complies with the Opencut Mining Act and the rules adopted thereunder. The DEQ approval of this application would not relieve the operator from the obligation to comply with any other applicable federal, state, or county statutes, regulations, or ordinances. The operator is responsible for obtaining any other permits, licenses, approvals, etc. that are required for any part of the proposed operation.

APPLICANT: Plum Creek Timberlands, L.P.

SITE NAME: 8 Mile Gold Creek

LOCATION: Section 6, T14N, R16W

COUNTY: Missoula

DATE: October 2011

PROPOSAL: The proponent has submitted an application to permit a new, Long-termed gravel pit to mine and transport 140,000 cubic yards of gravel from 4.1 acres of forested land adjacent to Gold Creek Road approximately 13 miles northeast of Bonner (See [FIGURE 1 – AREA MAP](#)). The site would be mined as a gravel source for local forest roads.

A reclamation bond would be held by DEQ to ensure final reclamation of the site to a forest would be completed by October 2031. As part of the permit application, the proponent submitted a Plan of Operation that provides baseline information, operation plans, and plans for reclamation that would replace soils and plant trees and grasses on the graded and topsoiled site. Reclamation is required by the Opencut Mining Act and the operator must comply with that statute and the rules and regulations promulgated under it.

IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
1. TOPOGRAPHY, GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:	<p>This site is located in mountainous, glaciated terrain adjacent to Gold Creek Road as it runs through a fault-controlled stream valley in the Garnet Mountain Range, 9 miles northwest of Potomac along Hwy 200 (See FIGURE 2 – SITE MAP). The material is most likely Quaternary alluvium deposited by glacial activity and influenced by fluvial activity from local retreating ice melt. Soils generally average 9 inches deep.</p> <p><i>Impacts:</i> Mining this area will result in irreversible and irretrievable removal of aggregate material from the site and will create a small impact to the quantity and quality of soils from salvaging, stockpiling, and re-soiling activities, but this would not impair the capacity of the soils to support full reclamation. There are no unusual topographic, geologic, soils or special reclamation considerations that would prevent reclamation success.</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
<p>2. WATER QUALITY, QUANTITY AND DISTRIBUTION</p>	<p>The nearest surface water is a small intermittent stream known as Wild Horse Creek that flows south into its confluence with Gold Creek 600 feet west side of the site. Significant vegetation and elevation differences preclude the potential for runoff into that stream drainage. No fuel will be stored and no recycled materials will be stockpiled or processes at this site. Groundwater is greater than 50 feet from the surface and will not be impacted by this activity. The site receives approximately 30 inches of precipitation a year.</p>
<p>3. AIR QUALITY</p>	<p>Air quality standards are based upon the Clean Air Act of Montana and pursuant rules and are administered by the DEQ Air Resources Management Bureau (ARMB). Its program is approved by the Environmental Protection Agency (EPA). These rules and standards are designed to be protective of human health and the environment.</p> <p>Air quality permits would be required on the processing equipment before installation. Machinery, such as generators, crushers and asphalt plants, are individually permitted for allowable emissions. Best Available Control Technology (BACT) is the usual standard applied. Fugitive dust is that which blows off the pit floor, stockpiles, gravel roads, farm fields, etc. It is considered to be a nuisance but not harmful to health.</p> <p><i>Impacts:</i> Air quality standards as set by the federal government and enforced by the ARMB would allow minimal detrimental air impacts.</p>
<p>4. VEGETATION COVER, QUANTITY AND QUALITY</p>	<p>The general area is forested land. During soil stripping operations, all vegetation will be removed. Some vegetative seed will remain viable in the soil and could assist in regeneration of those species when soils are replaced. The applicant will re-seed the area to species compatible with the post-mine land use of a forest. Silt fences, wattles and other Best Management Practices will be used to prevent storm runoff from entering the intermittent stream or from running out onto the graveled road.</p>
<p>5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:</p>	<p>Since the site is primarily forest, it supports populations of deer, elk, rodents, song birds, coyotes, foxes, black bears, raptors, insects and various other animal species. Population numbers for these species are not known.</p> <p><i>Impacts:</i> The proposed mine is expected to temporarily displace some individual species and it is likely that the site would be re-inhabited following reclamation to grassland.</p>
<p>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:</p>	<p>The Montana Natural Heritage Program has indicated that animals including the Westslope Cutthroat Trout, Bull Trout, Fisher, Canada Lynx and Wolverine are potential animal species that could be present in the region.</p> <p><i>Impacts:</i> These species have not been found on this site. Even if suitable habitat did exist at this specific location, the mining disturbance area would be small and large areas of similar or identical habitat surround the site. The possible impact to these species would be minimal.</p>

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
7. HISTORICAL AND ARCHAEOLOGICAL SITES	<p>The Montana State Historic Preservation Office (SHPO) has identified a site that has been previously discovered near this property known as the Gold Greek Guard Station but the remnants have been removed from the location. Therefore, a recommendation for a cultural resource inventory is unwarranted at this time. A walkover of the area by DEQ personnel did not reveal any historical resources.</p> <p><i>Impacts:</i> If during operations, resources were to be discovered, activities would be temporarily moved to another area or halted until SHPO was contacted and the importance of the resources was determined.</p>
8. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY	<p>Energy in the form of diesel fuel for dozers, loaders and trucks would be consumed while this site is operated and material is hauled to the highway project. No water would be captured or used at this site.</p>

IMPACTS ON THE HUMAN POPULATION	
RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
9. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS	<p>Zoning has been approved and a Zoning Form was provided with this application.</p>
10. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING	<p>None of these resources will be affected.</p>
11. AESTHETICS	<p>This site is visible from Gold Creek Road. The site is adjacent to the gravel road and sits uphill from the roadway. Work would begin at the bottom of the site next to the roadway and mining will progress uphill toward the east. Dozers, loaders, a crusher and trucks will be noticeable to the occasional traveler. Hours of operation will be very infrequent but could run 24/7 when operating.</p> <p><i>Impacts:</i> There would be mining, crushing and hauling activity at this site sporadically during the summer seasons, which could be noticeable to some. These impacts would be short-termed and minimal.</p>
12. QUANTITY/ DISTRIBUTION OF EMPLOYMENT	<p><i>Impacts:</i> No impact on employment; the same crews will be utilized for all operations.</p>
13. INDUSTRIAL, COMMERCIAL, AGRICULTURAL ACTIVITIES AND PRODUCTION	<p>This will be an industrial site with periods of stripping, mining, processing and hauling during the summers until the projects are completed.</p> <p><i>Impacts:</i> This site would be taken out of forest land during the project and would be reclaimed to forest upon project completion.</p>
14. LOCAL, STATE TAX BASE AND TAX REVENUES, PERSONAL AND COMMUNITY INCOME	<p>Local, state and federal governments would be responsible for appraising the property, setting tax rates, collecting taxes, etc. from the companies, employees, or landowners benefitting from this operation.</p>
15. DEMAND FOR GOVERNMENT SERVICES	<p>Minimal oversight from DEQ, MDT, MSHA, and OSHA.</p>
16. HUMAN HEALTH AND SAFETY	<p>Industrial activities are inherently more dangerous than non-use of an area. The OSHA and MSHA regulations provide specific regulation and oversight to ensure safety is paramount.</p>

FIGURE 1 – AREA MAP

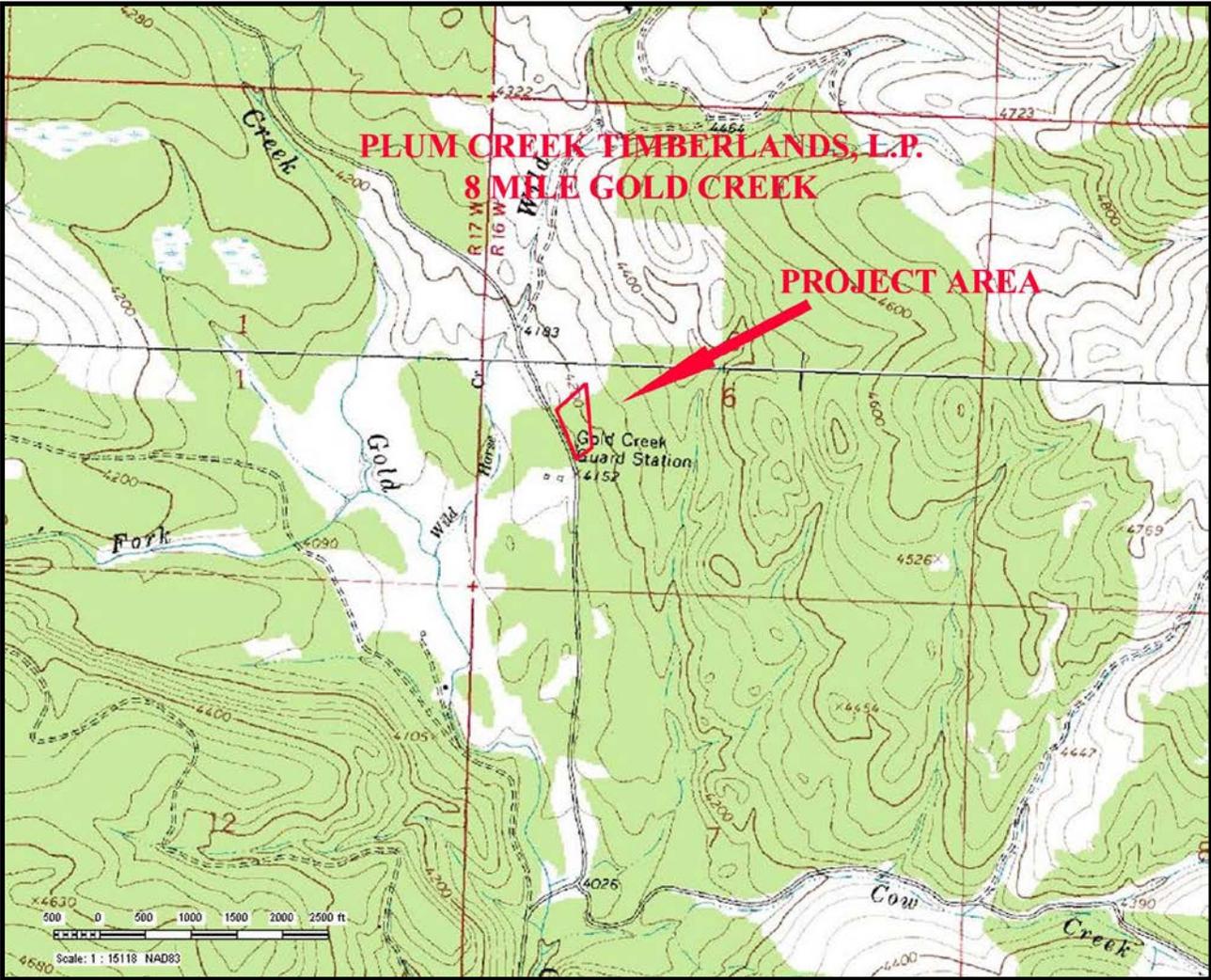
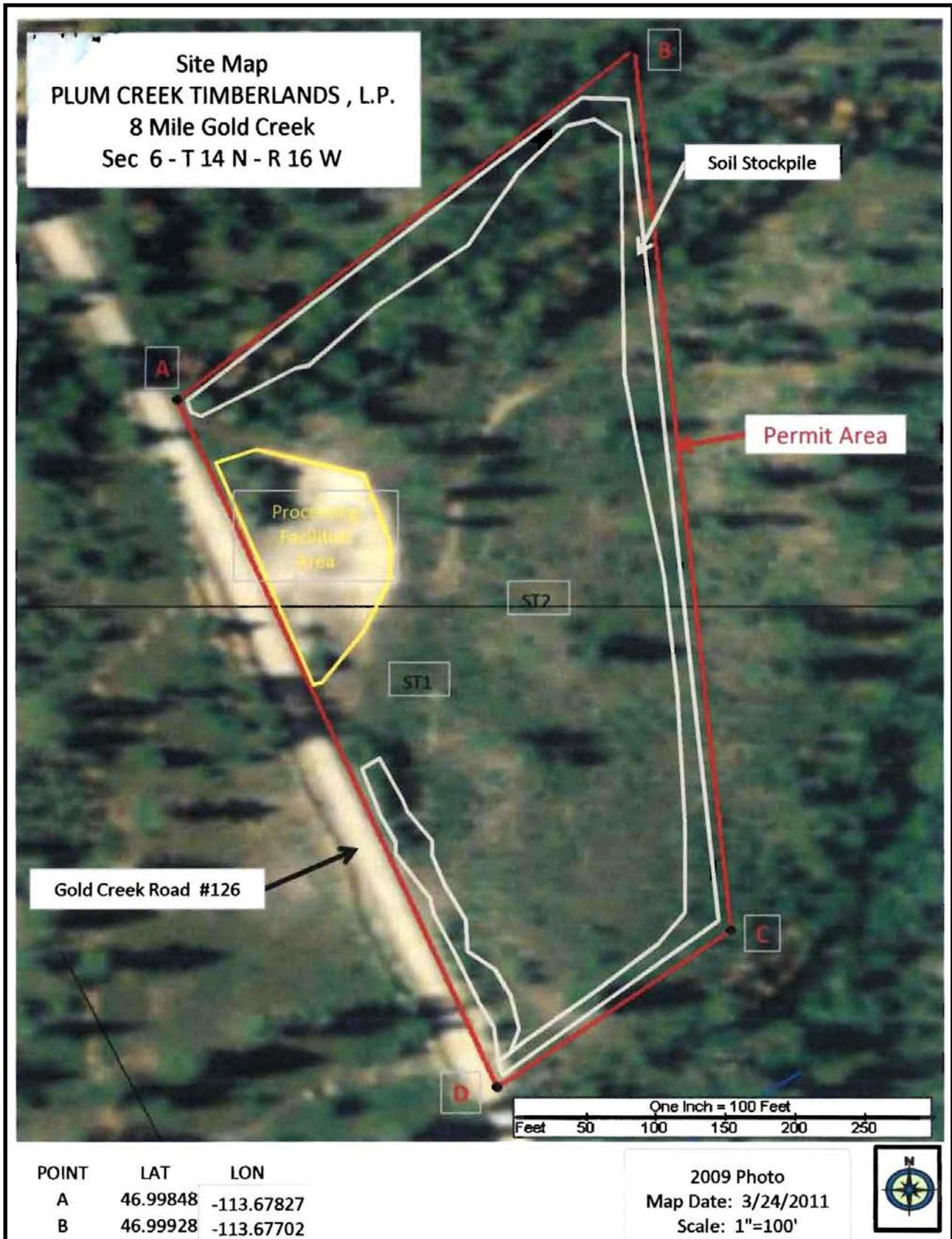


FIGURE 2 – SITE MAP



PRIVATE PROPERTY ASSESSMENT ACT (PPAA) CHECKLIST

DOES THE PROPOSED AGENCY ACTION HAVE TAKINGS IMPLICATIONS UNDER THE PPAA?

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deprive the owner of all economically viable uses of the property?
	X	4. Does the action deny a fundamental attribute of ownership?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? (If answer is NO, skip questions 5a and 5b and continue with question 6.)
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property?
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? (If the answer is NO, skip questions 7a-7c)
		7a. Is the impact of government action direct, peculiar, and significant?
		7b. Has the government action resulted in the property becoming practically inaccessible, waterlogged, or flooded?
		7c. Has the government action diminished property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?

Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b.

If taking or damaging implications exist, the agency must comply with § 5 of the Private Property Assessment Act, to include the preparation of a taking or damaging impact assessment. Normally, the preparation of an impact assessment will require consultation with agency legal staff.